



## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification<sup>3</sup> :

A47F 5/08 // E04F 13/16

A1

(11) International Publication Number:

WO 84/ 0226

(43) International Publication Date:

21 June 1984 (21.06.84)

(21) International Application Number: PCT/DK83/00123

(22) International Filing Date: 16 December 1983 (16.12.83)

(31) Priority Application Number: 5571/82

(32) Priority Date: 16 December 1982 (16.12.82)

(33) Priority Country: DK

(71) Applicant: MADSEN, Børge [DK/DK]; Drosselvej 19, DK-8600 Silkeborg (DK).

(72) Inventor: SKAFTE, Kaj, Heje ; Møllevvej 10, DK-8653 Them (DK).

(74) Agent: K. SKØTT-JENSEN; Lemmingvej 225, DK-8361 Hasselager (DK).

(81) Designated States: DE, DE (Auxiliary utility model), DK, FI, GB, NL, NO, SE.

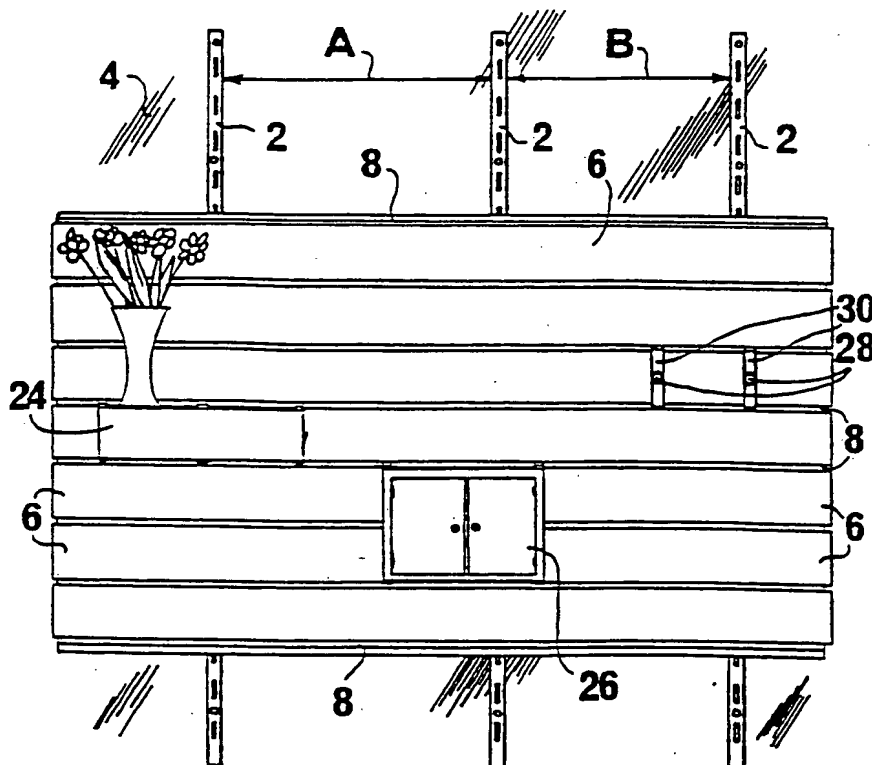
Published

*With international search report.*

(54) Title: A METHOD FOR BUILDING UP A CARRYING PANEL BOARDING AND A PROFILE MEMBER FOR USE BY THE METHOD

## (57) Abstract

By the building up of a carrying panel boarding, especially for use as shop furnishings and adapted to be mounted on vertical module members (2) by means of hook portions horizontal relatively narrow panel elements (6) are used which are successively secured to the module members (2) by means of horizontal profile members (8) which at opposite front side edges engage and support side edges of the panel elements (6), said profile members (8) being secured to the module members (2) by means of the hook portions comprising a base portion which is displaceably arranged in a longitudinal holding groove in the rear side of the profile member (8). In a distance from and in front of a vertical base wall portion said profile member (8) furthermore is provided with front edge flange portions in the form of projecting edge flange portions and an inwardly unbroken flange portion (22).



**FOR THE PURPOSES OF INFORMATION ONLY**

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AT	Austria	LI	Liechtenstein
AU	Australia	LK	Sri Lanka
BE	Belgium	LU	Luxembourg
BR	Brazil	MC	Monaco
CF	Central African Republic	MG	Madagascar
CG	Congo	MR	Mauritania
CH	Switzerland	MW	Malawi
CM	Cameroon	NL	Netherlands
DE	Germany, Federal Republic of	NO	Norway
DK	Denmark	RO	Romania
FI	Finland	SE	Sweden
FR	France	SN	Senegal
GA	Gabon	SU	Soviet Union
GB	United Kingdom	TD	Chad
HU	Hungary	TG	Togo
JP	Japan	US	United States of America
KP	Democratic People's Republic of Korea		

A Method for Building up a Carrying Panel Boarding and a Profile Member for Use by the Method.

The present invention relates to a method of building up a carrying panel boarding, e.g. for use as shop furnishings, and of the type being adapted to be mounted on vertical module members provided with a plurality of aligned slots by means of hook portions engaging said slots.

By the arrangement of showrooms and salesrooms vertical module members are often used, either in the form of wall mounted members or in the form of floor supported, movable posts which may be provided with module slot systems to more sides. These known module members are sold in many different embodiments and with various moduluses - from one product to another, but after all the different systems make use of almost uniform hook portions and also substantial uniform hole sizes in the form of oblong, preferably rectangular slots in the module members or module posts. In particular, in shops it often happens that the shop furnishings have to be modified or renewed which in a way favours the furnishings system which from the very beginning is used in the room in question because one usually wants to maintain at least a wall mounted module member system.

The invention has for its purpose to provide a method for building up a carrying panel boarding which according to the method may be mounted in almost any existing module member system if this is merely of the above mentioned known type with oblong hole system.

The method according to the invention is characterized in that the panel boarding is built up from horizontal relatively narrow panel elements which are successively secured to said module members by means of horizontal profile members which at opposite front side edges engage and support side edges of the panel elements, said profile

members having at their rear sides a longitudinal holding groove into which a base portion of said hook portions being displaceably arranged. Hereby is obtained the possibility of building up a carrying panel boarding which in a very easy manner may be adapted to almost any known module member system since the only real adaptation would be the adjustment of the width of the rather narrow horizontal panel elements in accordance with the actual modulus because the horizontal distance between the wall module members is without importance when use is made of horizontal displaceable hook portions by the securing of the horizontal profile members to the vertical module members.

In particular, it is appropriate to build up the panel boarding successively from below whereby it is rendered possible to cover an end wall which would not be possible with panel elements having to be inserted sideways into the system.

The invention also relates to a profile member for use by the building up of a carrying panel boarding. The particular configuration of the front edge flange portions of the profile members is very important for the main aspect of the invention, viz. to build up a carrying panel boarding by which the narrow panel elements may consist of quite cheap and weak material, seeing that the carrying function of the panel boarding, e.g. by the suspension of loose furnishings etc., entirely will be performed by the horizontal profile members which are directly secured to the module members.

The invention is described in more detail in the following, reference being made to the accompanying drawing, in which:-

Fig. 1 in a plane view shows a panel boarding built up in accordance with the method according to the invention,

Fig. 2 is a side view, partly in section, of a panel boarding according to the invention, and

Fig. 3 shows an end portion of a module post which may be used by the method according to the invention.

In Fig. 1 is shown a panel boarding which is mounted on wall module members 2 which are secured to the wall 4 with different mutual horizontal distance A and B. The panel boarding consists of narrow horizontal panel elements 6 which are secured to the module members 2 by means of profile members 8 which together with the panel elements 6 form a quite tight panel boarding which mounted on loose floor posts (Fig. 3) by way of example may be used for room partitioning.

As shown in Fig. 2 the module member 2 is secured to the wall 4 and profile members 8 are mounted on the module member 2 by means of hook portions 10, a base portion 12 of which being displaceably arranged in a holding groove 15 in the rear side of the profile member 8. The hook portions 10 engage as known per se in oblong slots 14 in the front side of the module member 2. Between the profile members 8 rather narrow panel elements 6 are fastened which at opposite side edges are provided with a recess 16 into which an outer portion 18 of an end flange 20 engages, which end flange 20 furthermore has an inward projection 22 which supports outer side edges of the panel elements 6. Therefore, these may consist of cheap fibre board material or e.g. of gypsum board since the panel elements 6 themselves need not have carrying function at all.

Loose furnishings such as shelves 24 and cupboards 26 (Fig. 1) and hanger bars 28 etc. may be suspended on the panel boarding by means of particular suspension mountings 30 which by means of an upper crank 32 engage behind the edge flange portion 22 of the profile member 8 (Fig. 2), while a base portion 34 of the suspension mounting 30 projects across the panel element 6, i.e. in such a

way that the base portion of the suspension mounting is supported by the edge flanges 22 of two or more adjacent profile members 8, respectively.

5 The panel boarding shown is well suited to be mounted on existing module members 2 since the panel boarding may constitute a tight covering with consealed cavities 36 (Fig. 2) in which electrical conductors etc. may be arranged.

By the building up of the panel boarding is started  
10 from below and the lowermost panel element perhaps may be adapted to secure a particular skirting board. Then the lowermost panel element 6 is inserted with its lower recess 16 on the edge flange portion 18 of the profile member 8 whereafter the next profile member 8 or rather the lower  
15 edge flange portion 18 thereof is inserted in the upper edge recess 16 of the panel element 6 at the same time as the profile member 8 by means of the hook portions 10 are connected to the module members 2 by pressing down of the profile member 8 etc.

20 The upper panel element 6 of the panel boarding may - as shown in Fig. 2 - be secured to the module member 2 by means of particular mountings 38 and similar, but inverted mountings 40 may be used at the bottom of the panel boarding. As shown in Fig. 3 the module members may  
25 consist of loose floor supported posts 42 with slot systems to more sides.

BUREAU  
0421  
175

## C l a i m s :

1. A method for building up a carrying panel boarding, e.g. for use as shop furnishings, and of the type being adapted to mount on vertical module members (2) provided with a plurality of aligned slots by means of hook portions (10) engaging said slots, c h a r a c t e r i z e d in that the panel boarding is built up from horizontal, relatively narrow panel elements (6) which are succesively secured to said module members (2) by means of horizontal profile members (8) which at opposite front side edges engage and support side edges of the panel elements (6), said profile members (8) having at their rear sides a longitudinal holding groove (15) into which a base portion (12) of said hook portions (10) being displaceably arranged.
2. A method according to claim 1, c h a r a c t e r i z e d in that a lowermost profile member (8) having at least one longitudinal flange portion (20) is secured to the module members (2) by means of said hook portions (10), whereafter a lower side edge of a narrow horizontal panel element (6) is placed about the flange portion (20), then the panel element (6) is secured to the module members (2) by means of another profile member (8) having both a lower and an upper longitudinal flange portion (20) engaging said side edge portions of said lowermost panel element (6) and the following panel element (6), respectively, and then the latter is secured to the module members (2) by means of a third profile member (8) etc.
3. A profile member for use by the method according to claims 1 and 2 and with a rear side profiling comprising said longitudinal holding groove (15) for said displaceable base portions of said hook portions (10), c h a r a c t e r i z e d in that it is provided with

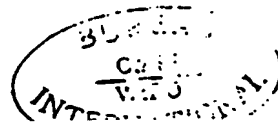


front side flange portions (20) at the front side opposite  
said holding groove (15) and in a distance from and in  
front of a preferably vertical base wall portion (9),  
said flange portions (20) extending substantially parallel  
5 to the base wall portion (9) and having a projecting  
edge flange portion (18) and an inwardly unbroken flange  
portion (22) being adapted to support outer edge portions  
of the panel elements (6) and to fasten external  
mountings (30) by the suspension of loose furnishings etc.  
10 on the panel boarding.



## ABSTRACT:

By the building up of a carrying panel boarding, especially for use as shop furnishings and adapted to be mounted on vertical module members (2) by means of hook portions (10) horizontal relatively narrow panel elements (6) are used which are successively secured to the module members (2) by means of horizontal profile members (8) which at opposite front side edges engage and support side edges of the panel elements (6), said profile members (8) being secured to the module members (2) by means of the hook portions (10) comprising a base portion (12) which is displaceably arranged in a longitudinal holding groove (15) in the rear side of the profile member (8). In a distance from and in front of a vertical base wall portion (9) said profile member (8) furthermore is provided with front edge flange portions (20) in the form of projecting edge flange portions (20) and an inwardly unbroken flange portion (22). Hereby is obtained the possibility of building up a carrying panel boarding which in an easy manner may be adapted to any known module member system. The panel elements may consist of quite cheap and weak material because the carrying function of the panel boarding is entirely performed by the horizontal profile members which are directly secured to the vertical module members.



1/1

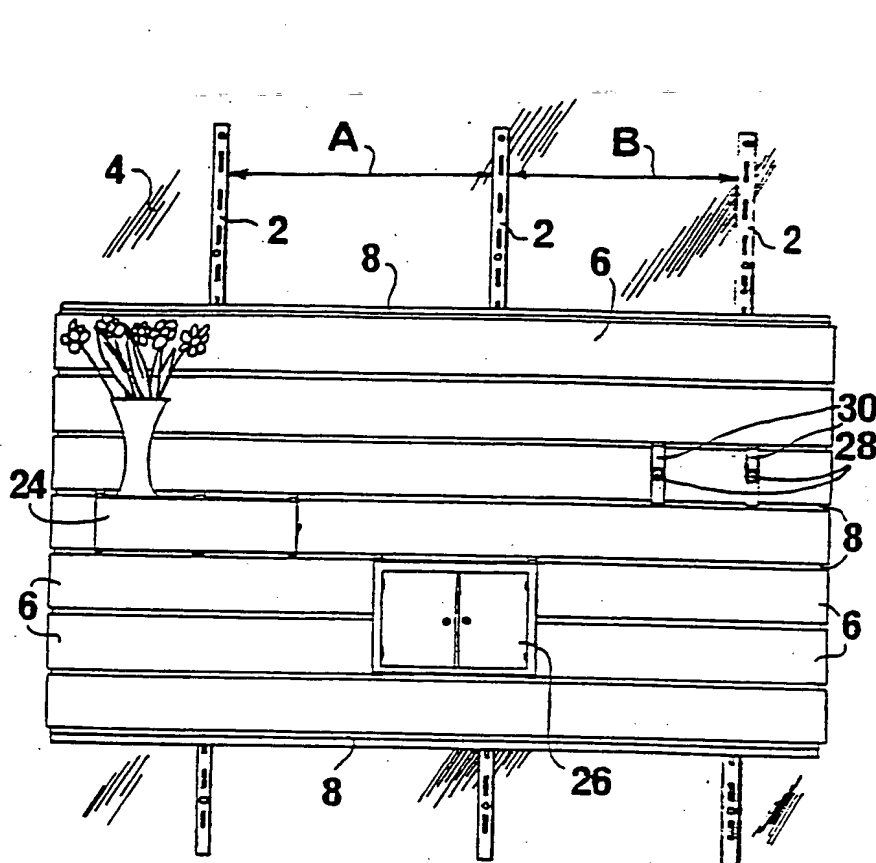


FIG. 1

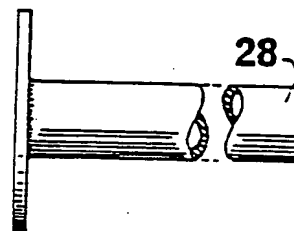


FIG. 2

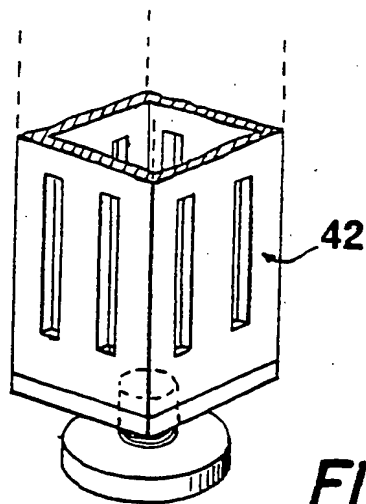
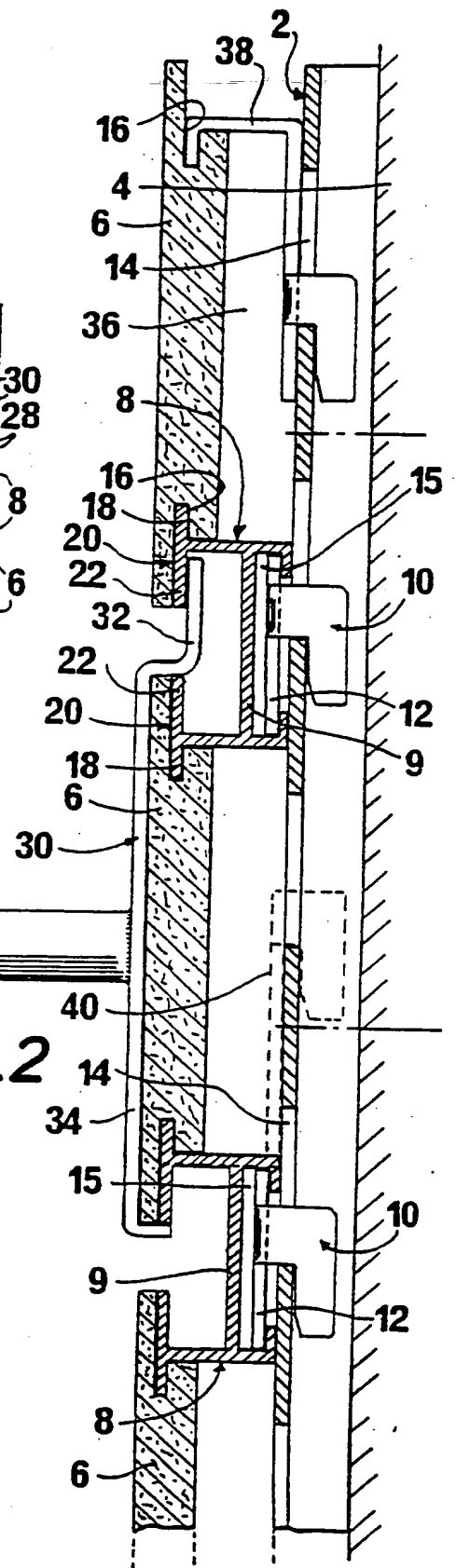


FIG. 3



Corrected

## INTERNATIONAL SEARCH REPORT

International Application No PCT/DK83/00123

## I. CLASSIFICATION OF SUBJECT MATTER (If several classification symbols apply, indicate all) \*

According to International Patent Classification (IPC) or to both National Classification and IPC 3

A 47 F 5/08 // E 04 F 13/16

## II. FIELDS SEARCHED

## Minimum Documentation Searched \*

## Classification System

## Classification Symbols

IPC 3

A 47 B 57/08, 10, 32, 34, 96/14, 20; A 47 F 5/00, 08-14, 11/00-02; E 04 F 13/10-18

US C1

52: 486, 487; 108: 107, 108, 110; 211: 86, 87.../.

Documentation Searched other than Minimum Documentation to the extent that such Documents are included in the Fields Searched \*

SE, NO, DK, FI classes as above

III. DOCUMENTS CONSIDERED TO BE RELEVANT <sup>10</sup>

Category *	Citation of Document, <sup>11</sup> with indication, where appropriate, of the relevant passages <sup>17</sup>	Relevant to Claim No. <sup>18</sup>
A	SE, B, 406 696 (J BRAAMS) 26 February 1979	3
Y	DE, A1, 1 932 425 (G VARLONGA) 29 October 1970 & NL, 6909281 CH, 497624 BE, 735307	1-3
A	DE, A1, 2 061 548 (A INGVARTSEN) 22 July 1971	3
P	DE, A1, 3 239 161 (G K O SHOTEN) 11 May 1983	1-3
Y	US, A, 3 005 293 (E D HUNTER) 24 October 1961	1-3
Y	US, A, 4 154 419 (J H BREIDENBACH) 15 May 1979	1-3

\* Special categories of cited documents: <sup>19</sup>

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"Z" document member of the same patent family

## IV. CERTIFICATION

Date of the Actual Completion of the International Search \*

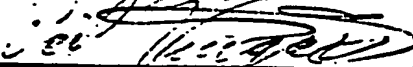
1984-03-16

Date of Mailing of this International Search Report \*

1984-03-29

International Searching Authority \*

Swedish Patent Office

Signature of Authorized Officer <sup>20</sup>


## FURTHER INFORMATION CONTINUED FROM THE SECOND SHEET

II

Fields Searched (cont.)

US C1 90-103, 134, 168, 169, 174, 180;  
 248:205, 207, 214, 215, 235, 241,  
 243; 312:245-248

V. ☐ OBSERVATIONS WHERE CERTAIN CLAIMS WERE FOUND UNSEARCHABLE <sup>10</sup>

This international search report has not been established in respect of certain claims under Article 17(2) (a) for the following reasons:

1. ☐ Claim numbers ..... because they relate to subject matter <sup>12</sup> not required to be searched by this Authority, namely:

2. ☐ Claim numbers ..... because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out <sup>13</sup>, specifically:

VI. ☐ OBSERVATIONS WHERE UNITY OF INVENTION IS LACKING <sup>11</sup>

This International Searching Authority found multiple inventions in this international application as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims of the international application.

2. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims of the international application for which fees were paid, specifically claims:

3. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claim numbers:

4. ☐ As all searchable claims could be searched without effort justifying an additional fee, the International Searching Authority did not invite payment of any additional fee.

## Remark on Protest

☐ The additional search fees were accompanied by applicant's protest.

☐ No protest accompanied the payment of additional search fees.